Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method in a data processing system for monitoring execution of instructions, the method comprising:

identifying an instruction for execution;

determining whether the instruction is within a contiguous range of instructions; and

~~identifying~~ generating execution information relating to the instruction if the instruction is within the contiguous range of instructions.

2. (Currently amended) The method of claim 1 wherein the generating step comprises ~~further comprising~~:

~~enabling~~ counting [[of]] each event associated with execution of the instruction if the instruction is within the contiguous range of instructions ~~to enable generation of execution information~~.

3. (Currently amended) The method of claim 2, wherein the ~~enabling~~ counting step comprises:

sending a signal from an instruction cache to a performance monitor unit; and

the performance monitor unit tracking the counting of each event associated with an execution of the instruction if the instruction is within the contiguous range of ~~memory~~ instructions ~~to form the execution information~~.

4. (Currently amended) The method of claim 1 further comprising:

determining whether the instruction is within a second contiguous range of instructions; and

~~identifying~~ generating the execution information relating to the instruction if the instruction is within the second contiguous range of instructions.

5. (Original) The method of claim 1, wherein the execution information includes at least one of a number of visits to the range of instructions and a number of times the instruction has been executed.

6. (Currently amended) The method of claim 1, wherein the determining step comprises:

comparing an address of the instruction to a set of addresses in a set of registers in a processor to determine whether the instruction is in the contiguous range of instructions.

7.   (Original) The method of claim 6 further comprising:

setting the set of registers using a performance tool.

8.   (Currently amended) A method in a data processing system for monitoring access to data in memory locations, the method comprising:

identifying an access to data in a memory location;

determining whether the memory location is within a contiguous range of memory locations; and

~~identifying~~ generating information relating to the memory location if the memory location is within the contiguous range of memory locations.

9.   (Currently amended) The method of claim [[1]] 8 wherein the generating step comprises ~~further~~ ~~comprising~~:

~~enabling~~ counting [[of]] each event associated with access of the memory location if the memory location is within the contiguous range of memory locations ~~to enable generating the information~~.

10.   (Currently amended) The method of claim 9, wherein the ~~enabling~~ counting step comprises:

sending a signal from a data cache to a performance monitor unit; and

the performance monitoring unit tracking the counting of each event associated with an access of the memory location if the memory location is within the contiguous range of memory locations ~~to form~~ ~~the information~~.

11.   (Currently amended) The method of claim 8 further comprising:

determining whether the memory location is within a second contiguous range of memory locations; and

~~identifying~~ generating the information relating to the memory location if the instruction is within the second contiguous range of memory locations.

12.   (Original) The method of claim 8, wherein the execution information includes at least one of a number of visits to the range of memory locations and a number of times the memory location has been accessed.

13.   (Currently amended) The method of claim 8, wherein the determining step comprises:

comparing an address of the memory location to a set of addresses in a set of registers in a processor to determine whether the memory location is in the contiguous range of memory locations.

14.   (Original) The method of claim 13 further comprising:

setting the set of registers using a performance tool.

15.   (Currently amended) A data processing system for monitoring execution of instructions, the data processing system comprising:

[[first]] identifying means for identifying an instruction for execution;

determining means for determining whether the instruction is within a contiguous range of instructions; and

~~second identifying~~ generating means for ~~identifying~~ generating execution information relating to the instruction if the instruction is within the contiguous range of instructions.

16.   (Currently amended) The data processing system of claim 15 wherein the generating means comprises ~~further comprising~~:

~~enabling~~ counting means for ~~enabling~~ counting [[of]] each event associated with execution of the instruction if the instruction is within the contiguous range of instructions ~~to enable generation of execution information~~.

17.   (Currently amended) The data processing system of claim 16, wherein the ~~enabling~~ counting means comprises:

sending means for sending a signal from an instruction cache to a performance monitor unit; and

the performance monitor unit comprising tracking means for tracking the ~~counting means for~~ counting of each event associated with an execution of the instruction if the instruction is within the contiguous range of ~~memory~~ instructions ~~to form the execution information~~.

18.   (Currently amended) The data processing system of claim 15, wherein ~~the~~ the ~~identifying~~ determining means is a first ~~identifying~~ determining means and the generating means is a first generating means and further comprising:

second determining means for determining whether the instruction is within a second contiguous range of instructions; and

~~third identifying~~ second generating means for ~~identifying~~ generating the execution information relating to the instruction if the instruction is within the second contiguous range of instructions.

19.   (Original) The data processing system of claim 15, wherein the execution information includes at least one of a number of visits to the range of instructions and a number of times the instruction has been executed.

20.   (Currently amended) The data processing system of claim 15, wherein the determining [[step]] means comprises:

       comparing means for comparing an address of the instruction to a set of addresses in a set of registers in a processor to determine whether the instruction is in the contiguous range of instructions.

21.   (Original) The data processing system of claim 20 further comprising:

       setting means for setting the set of registers using a performance tool.

22.   (Currently amended) A data processing system for monitoring access to data in memory locations, the data processing system comprising:

       [[first]] identifying means for identifying an access to data in a memory location;

       determining means for determining whether the memory location is within a contiguous range of memory locations; and

       second identifying generating means for identifying generating information relating to the memory location if the memory location is within the contiguous range of memory locations.

23.   (Currently amended) The data processing system of claim [[15]] 22 wherein the generating means comprises further comprising:

       enabling counting means for enabling counting [[of]] each event associated with access of the memory location if the memory location is within the contiguous range of memory locations to enable generating the information.

24.   (Currently amended) A computer program product in a computer readable medium for monitoring execution of instructions, the computer program product comprising:

       first instructions for identifying an instruction for execution;

       second instructions for determining whether the instruction is within a contiguous range of instructions; and

       third instructions for identifying generating execution information relating to the instruction if the instruction is within the contiguous range of instructions.

25.   (Currently amended) A computer program product in a computer readable medium for monitoring access to data in memory locations, the computer program product comprising:

first instructions for identifying an access to data in a memory location;

second instructions for determining whether the memory location is within a contiguous range of memory locations; and

third instructions for ~~identifying~~ generating information relating to the memory location if the memory location is within the contiguous range of memory locations.